Amendments to the Specification

Page 1, before the first line insert the following paragraph:

Cross References to Related Applications
This application is a division of copending application Serial No. 09/992,883, filed 11/6/2001, which is a division of application Serial No. 09/619,802, filed 7/20/2000, now U.S. Patent No. 6,391,273.

Page 1, line 2, insert the heading --Technical Field--.

Page 1, line 5, insert the heading --Background of the Invention--.

Page 2, line 15, insert the heading --Summary of the Invention--.

Page 3, line 19, replace the paragraph beginning on this line with the following paragraph:

With this process according to the invention, it is possible to produce oxidic nanocrystals which are present in a thermodynamic equilibrium phase and have a mean initial particle size of at most 100 nm, preferably of 1 to 20 nm, in particular an initial particle size in the region of 10 nm, and a cubic crystal structure. They may in particular be relatively unagglomerated, preferably with a mean ultimate particle size of up to 20 nm. The cubic equilibrium phase of the oxide is reached even during the production process. The cubic equilibrium phase is particularly important for phosphors with a high quantum efficiency which are based on oxides of this type, such as for example yttrium oxide (Y_2O_3), gadolinium oxide (Gd_2O_3) or corresponding garnets, such as cerium-activated yttrium aluminum garnet, YAG:Ce or cerium-activated yttrium gadolinium aluminum garnet, (YGd)AG:Ce. ~~Other applications relate to phosphors of the type YAM, YAP or BAM and CAT.~~

Page 6, line 29, insert the heading --Brief Description of the Drawings--.

Page 7, line 10, insert the heading --Detailed Description of the Invention--.

Page 7, line 21, replace the paragraph beginning on this line with the following paragraph:

The apparatus 10 illustrated in the exemplary embodiment is used to produce doped oxidic nanocrystals, namely europium (Eu)-doped yttrium oxide (Y_2O_3:Eu). Metalorganic complexes of yttrium or europium, namely ~~yttriumetetramethylheptanedionate~~ yttrium tetramethylheptanedionate and europium tetramethylheptanedionate ($Y(TMHD)_3$ or $Eu(TMHD)_3$) are converted into the gas phase in the first vaporizer 12 or in the second vaporizer 14. The resultant gas phases of the complexes are transferred into the reactor 16 with the aid of a carrier gas. In each case, one heatable tube 48, 50 is arranged between the vaporizers 12, 14 and the reactor 16. In this exemplary embodiment, the carrier gas used is argon which is fed into the system from a carrier gas source 34. The flow rate of the carrier gas is controlled, by means of a first flow regulator 26 and a second flow regulator 28, to typically 20 ml/min-50 l/min, preferably 150-250 ml/min. Both vaporizers 12, 14 are at a temperature of approximately 30°-900°C, preferably 140°-180°C, which are produced by vaporizer heating means which are designed as oil baths.